➔ How to test whether model is overfitting or underfitting?

➔ Explain PCA

➔ Explain Linear and Logistic Regression

➔ What is L1 and L2 regularization

➔ Explain Gradient Descent

➔ Explain CNN

➔ What is dropout (mathematically)

➔ Assumptions of Logistic and Linear Regression

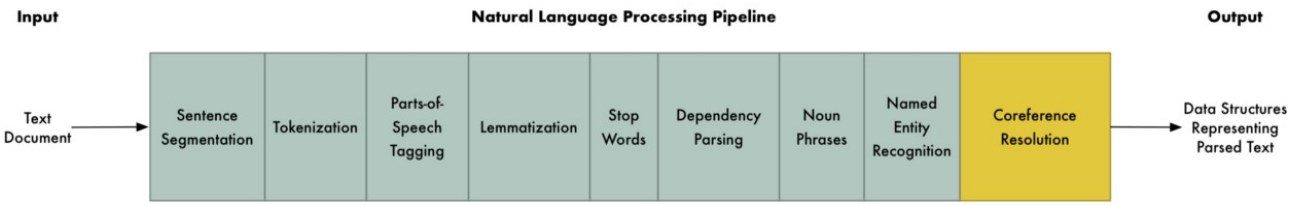
➔ How to do feature selection

➔ How to find features are independent or not. How to remove multicollinearity

➔ How to detect and remove outliers from data

➔ Explain data cleaning and data preprocessing techniques

➔ Explain NLP Pipeline in detail



➔ Performance metrices

➔ Cost function vs loss function

➔ Time Series forecasting

Statistics

1. What kind of Statistics you have used in your project?

2. What all descriptive statistics you have used, with the scenario?

3. What is Z-Score?

4. What is Standard Deviation?

5. Difference between Z-Test and T-Test?

6. Different types of the t-test?

7. What is Chi-Square?

8. When will you go for Chi-Square?

9. What is Anova?

10. What is F-Test?

11. Difference between Parametric and Non-Parametric Test?

Machine Learning

1. What all preprocessing steps you do, given a dataset?

2. How will you transform the data?

3. How will you find the which feature is significant for you?

4. Which algorithm do you like most? (So, that I will question from that)

5. What is Gradient Descent?

6. Explain the steps in Gradient Descent?

7. How will you evaluate a model?

8. What error metrics you use for Regression?

9. What error metrics you use for Classification?

10. Difference between MSE and MAE?

11. What is Overfitting, how will you reduce?

12. What is variance and bias trade-off?

13. What is the recall and when to use?

14. What is precision and when to use?

15. What will happen if your data is an unbalanced label?

16. How will you get rid off unbalanced data?

17. In Linear Regression, how do you come up with intercept and co-efficient? (Explain Internal step for the algorithm)

18. What is R2 and Adjusted R2?

19. Explain the Logistic Regression. (Explain Internal step for the algorithm)

20. What is Null Deviance and AIC in Logistic Regression?

21. How do you construct the Decision Tree?

22. The formula for Entropy and Gini Index?

23. Which method of the Decision tree is more efficient in terms of time?

24. What is the problem in the decision tree?

25. How will you avoid Overfitting in a Decision tree?

26. What is Pruning in Decision Tree?

27. What will happen internally when you have numeric column while constructing Decision Tree?

28. Why do we need to go Decision Tree when we have Logistic Regression?

29. What is Bagging?

30. What is the problem in Decision Tree?

31. Explain the internal working of Random Forest?

32. What is OOB in Random Forest?

33. Random Forest uses entropy or Gini by default and why?

34. Advantage of Random Forest?

35. What is the Difference between Bagging and Boosting?

36. Explain anyone Boosting Algorithm?

37. What algorithm you have worked on Unsupervised Learning?

38. How K-means works internally?

39. In K-means how do you find optimal K value?

40. What is the disadvantage of K-means?

41. What is K-means++?

42. How will you find optimal value in Hierarchical cluster?

43. How will you construct Dendrogram?

Deep learning

1. How good are you in Deep learning?

2. In which project did you use the neural network?

3. Why do we use Activation function in Neural networks?

4. List some Activation function?

5. What is a Back Propagation?

6. What is the problem of using Deep Learning?

7. What is Vanishing and Exploding Gradient Descent?

8. How will you avoid Vanishing and Exploding Gradient Descent?

9. What is Batch Normalization?

10. What is Gradient Clipping?

11. Why relu and elu is better activation function in theoretical?

12. How will you avoid Overfitting in Deep learning?

13. What Is Dropout?

14. What is the epoch, iteration, batch?

15. What is CNN

16. What is RNN

17. Why LSTM on RNN?

18. What are pre-trained models?

19. What is transfer learning?

Text Analytics

1. Have ever done a project in text analytics?
2. What is the difference between Bag of words and TF-IDF?
3. What is Vectorization of words?
4. How do you do unsupervised learning on the text?
5. What all library u have used in NLP?
6. What is Word-embeddings?
7. What are word2vec, glove and Fast-text?
8. How LSTM is helping in text analytics?
9. How genism word2vec works?
10. what are pretrained models you worked on text analytics?
11. Transfer Learning with text analytics?
12. Topic Model in NLP using LDA, NMF, LSI?
13. Why Cosine Similarity?

Python

1. How much do you rate yourself in python?
2. Which IDE do you use?
3. What is the difference between list and tuple?
4. What is the attribute of set and String?
5. If the list is there why tuple. Being immutable what is the need of having it?
6. What is dynamic typing?
7. Have you ever used the pointer in python?
8. How do you create a class and object in python?
9. If we have an array in python, Why do we need Numpy array?
10. What is the underlying program architecture of numpy?
11. Why numpy is time and space-efficient?

12. Can I use more than one data type in numpy array?

13. If I want to use different datatype in each column which features to use in python?

14. In pandas, how to check null values and delete only all rows is na?

15. How will you find the duplicate value in pandas?

16. How will you impute the missing value in pandas?

17. What do value_counts() function does?

18. How will you remove outlier?

19. How will you convert the non-normal data to normal distribution data?

20. How will you plot a histogram in python?

21. How do you group by a column in pandas?

22. How will you serialize the model?